

Remarks

My comments of 7/19/05 still apply as valid arguments disputing the prior art search by the patent examiner as a bar for our invention.

Additional remarks are as follows:

U.S. patent teaches the use of substituting polyethylene oxide for a portion of isopropanol in a conventional fountain solution. Isopropanol is toxic to humans and very volatile, thereby polluting the workplace. Furthermore, the polyethylene oxide of 715' has a molecular weight range of 50,000 to 150,000. Thus the polyethylene oxide as taught in 715' would not be operative as an anti-piling agent, since our requirement is a minimum of 200,000 up to 7,000,000. There is no hint of a polyethylene oxide polymer of a specific molecular weight range to function as an anti-piling agent disclosed in 715'.

Japanese Publication Number 05-286279. This invention teaches the use of polyethylene oxide and/or poly acrylamide having a molecular weight not less than 1,000,000 as desensitizing water-soluble polymers capable of imparting a hydrophilic character on the non-image part of a lithographic printing plate. This property is unrelated to the property of an anti-piling agent therefore obviousness is not apparent at all. In fact, poly acrylamide at any molecular weight does not function as an anti-piling agent at the effective concentration that polyethylene oxide does as taught by our invention. Furthermore, the molecular weight limit of the Japanese Publication does not overlap the molecular weight of our anti-piling polyethylene oxide polymers e.g., polyethylene oxide with molecular weights of 200,000; 500,000; and 700,000 up to 1,000,000.

E.P. 0 091 601: This patent application teaches the combined usage of substituting 0.5 to about 10 v % of isopropanol with a glycol derivative, and the inclusion of one of many types of water-soluble polymers to confer a increase in viscosity in order to control the water usage in a Dahlgren fountain solution roller.

None of the water-soluble polymers mentioned, with the sole exception of polyethylene oxide, can be used as an anti-piling agent. Even the polyethylene oxide polymers of this E.P. invention cannot function as an effective anti-piling agent , since the molecular weight range is between 8,000 to about 100,000 (see page 3). Our invention clearly indicates that these unique and novel polyethylene oxide anti-piling agents must be carefully controlled with a molecular weight between 200,000 and 7,000,000.

We do not agree with the examiner that the prior art renders our invention obvious, because one of them even suggest the use of polyethylene oxide with a specific molecular weight range as anti-piling agents. This is true whether you consider the prior art individually or in combination.

If the examiner were right about the obviousness of our invention considering the prior art, then the polyethylene oxide polymers of the prior art would be functional as anti-piling agents, which they are not.

Our recognition of the criticality of the molecular weight and the need for an effective anti-piling agent resulted in unexpected results, and commercial success in finding a long-felt need, whereby all prior efforts have resulted in failure.